



AUDIO FAQ

Q Is it best to buy an MP3 player that uses flash memory or a hard disk?

A It depends on your budget and how you intend to use the player. Generally, flash memory is used by cheaper products. It's compact and has no moving parts, so an MP3 player that uses it doesn't need a powerful battery and can be very small.

Flash memory is unaffected by everyday shocks, so it's the right choice if you're going to jog or work out while using your MP3 player. However, it currently costs more per megabyte than a hard disk, so flash-based players tend to have less storage. The 4GB iPod nano is the highest-capacity example we know of and it costs over £170 including VAT.

Hard disk MP3 players use one of two disk types. Full-sized players, such as Toshiba's Gigabeat in our Hotlist opposite, have 1.8" notebook hard disks with between 20GB and 60GB of storage. Smaller players such as the Zen MicroPhoto reviewed on the right use a 1" disk.

Disk-based players require bigger batteries. Hard disks don't perform well in a bumpy environment and can be permanently damaged by a violent shock. They offer more storage for your money, though, so they're ideal if you have a large music collection.

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REVIEW MP3 PLAYER

CREATIVE Zen MicroPhoto

RATING ★★

PRICE £180 inc VAT

SUPPLIER www.dabs.com

DETAILS <http://uk.europe.creative.com>

The current vogue for MP3 players to have colour photo screens means many older models now look out of date. Creative's Zen Micro, which we first reviewed in *Labs, Shopper* March 2005, is a decent player for £140, but it looks a bit old next to the iPod Nano or the iRiver U10 reviewed opposite.

Creative has tried to address this with the release of its Zen MicroPhoto. Although the new player looks almost identical to the Zen Micro, it has several enhancements. The MicroPhoto is the first MP3 player of this size that we've seen with an 8GB hard disk.

The MicroPhoto has a 1.5" Organic Light Emitting Diode (OLED) screen. This can display JPEG image files, but is smaller than the LCD screens on competing products. It's a bit too small for an effective photo viewer and its comparatively low resolution makes pictures look blocky. The main controls are touch-sensitive. Like many such systems, we found them inaccurate and annoying.

Like iRiver's U10, this player supports protected WMA files and bears Microsoft's Plays For Sure logo. The MicroPhoto supports download and subscription licensing, so it's compatible with Napster To Go. It has an FM radio, too, although this was susceptible to interference.

The MicroPhoto comes with an installation disc containing a few programs such as Creative's MediaSource management software. Installing these is optional if you have Windows Media Player 10, because the MicroPhoto identifies itself to your PC as a portable media device. Using Windows



Explorer, this allows you to copy music and photos to the player, which updates its database from ID3 tag information. Copying 500MB of music in this way took one minute and 47 seconds.

We weren't too impressed with the sound through the supplied bud earphones. There was plenty of strong bass, but some mid-range frequencies were harsh and treble lacked clarity. Using better headphones revealed perfectly good sound. The battery lasted for 11 hours and 27 minutes of continuous playback, which is around three hours shorter than the iPod Nano.

The MicroPhoto has an impressive amount of storage for its size, but it costs almost as much as Toshiba's 20GB Gigabeat (see the Hotlist opposite). The Gigabeat is bigger and has no radio, but it has more storage, a better screen and better battery life.

Simon Handby

Large disk capacity for size; FM radio

Annoying touch-sensitive controls; small screen; unimpressive earphones and battery life

SPECIFICATIONS Hard disk MP3 player, 8GB capacity, supports MP3, WMA and protected WMA, WAV and IMA ADPCM audio files and JPG image files, USB Hi-Speed interface. **Part code** 70PF165000035

HOTLIST 2.1 SPEAKERS

TRUST 2.1 Speaker Set SP-3600A

RATING ★★★★★

PRICE £32 inc VAT

SUPPLIER www.microdirect.co.uk

DETAILS www.trust.com

These classy speakers have a remote that includes a volume control, line input and headphone socket. Sound quality was extremely good in our tests, with solid bass and detailed mid and high frequencies. The speakers aren't massively loud, and the satellite cables are only 1.5 metres long, but they're great value.

SPECIFICATIONS 2.1 speakers, line and aux inputs, 28W RMS power. **Part code** 14235



HOTLIST SOUND CARD

CREATIVE Sound Blaster X-Fi XtremeMusic

RATING ★★★★★

PRICE £86 inc VAT

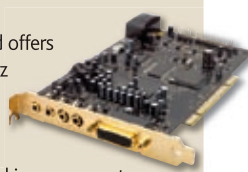
SUPPLIER www.misco.co.uk

DETAILS <http://uk.europe.creative.com>

Creative's new sound card offers high-quality 24-bit, 96KHz sound recording and playback, although you'll need a good set of speakers to hear the sound improvement. The X-Fi is good for recording music, and has EAX Advanced HD 5.0 sound processing, which makes games that support it more atmospheric.

If you want the best sound on your PC, the X-Fi is better than any onboard sound chip.

SPECIFICATIONS Line, mic and optical S/PDIF inputs, four line (7.1) outputs, midi port, PCI interface. **Part code** 70SB046002010



HOTLIST SURROUND SPEAKER SET

LOGITECH Z-5500

RATING ★★★★★

PRICE £198 inc VAT

SUPPLIER www.dabs.com

DETAILS www.logitech.co.uk

Logitech's 5.1 Z-5500 speakers have what it takes to satisfy most people's surround-sound needs. They're powerful enough to shake the house with 505W RMS, and they deliver rich bass thanks to the large subwoofer.

The speakers are THX-certified and come with a DTS and Dolby Digital decoder, so you can plug in a DVD player as well as a PC.

SPECIFICATIONS 5.1 surround sound, 505W RMS, optical and coaxial digital inputs, three stereo inputs, Dolby Digital and DTS decoder **Part code** 970115-0120



REVIEW MP3 PLAYER**IRIVER
U10 1GB**

RATING ★★★★★

PRICE £134 inc VAT

SUPPLIER www.phantasia.net/onlineDETAILS www.iriver.eu.com

The iPod's scroll wheel interface is easy to use and looks great, but troublesome patent laws mean that no-one else can copy it. This leaves other manufacturers with the headache of finding something that works as well. Iriver has endowed some of its MP3 players with cryptic controls, so the neat-looking U10 is a revelation.

At first glance, it looks as though iRiver may have overlooked controls altogether. The player has a power switch, volume buttons and a sliding key lock, but nothing else. However, turning on the U10 reveals a 320x240 pixel 5.6cm colour screen, which can be rocked in four directions to control most functions. This is so easy to use, it's surprising nobody thought of it before. Each menu page has a list of options with icons at each side of the screen to indicate what a rock in that direction will accomplish. The player can sometimes be a little slow to respond – and it's easy to get greasy fingerprints on the screen – but it is still one of the easiest we've used.

Even without the funky controls, this is a quality MP3 player. Photos look great on its screen, which can also display MPEG4 movies. It comes with some Flash games and has an FM radio with very good reception. Music sounded great through



the supplied Sennheiser earphones. The U10's battery lasted an impressive 20 hours in our test.

Like the Creative Zen MicroPhoto reviewed opposite, the U10 identifies itself to Windows as a portable media player. You can copy audio or AVI files to it using Windows Explorer. It supports protected WMA files from a purchase or subscription service.

We reviewed the U10 with its dock, which costs another £37 and has its own tiny speakers and a remote control. Slotted into this, the player looks like a cute miniature television. It can also be used as an alarm clock but, frustratingly, the radio is disabled.

The U10 has only 1GB of flash memory, which is a disappointment at this price; the 2GB model costs another £34. Although it's bigger than the iPod nano, the U10 can't match it for storage. This is a shame because it is a better MP3 player. It combines better sound and a bigger screen with a longer battery life, and it's just as easy to use.

Simon Handby

✓ Great screen, sound and earphones; innovative design; long battery life

✗ Expensive; small storage capacity

SPECIFICATIONS Flash-based MP3 player, 1GB capacity, supports MP3, WMA and protected WMA, WAV and OGG Vorbis audio files, JPG image files and AVI movies, USB Hi-Speed interface. **Part code** 3U104X

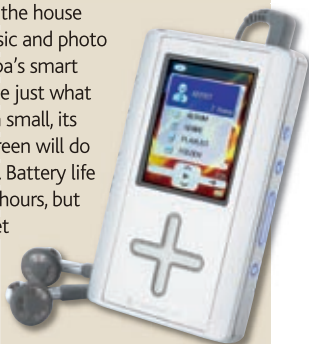
HOTLIST MP3 PLAYER**TOSHIBA
Gigabeat F20**

RATING ★★★★★

PRICE £185 inc VAT

SUPPLIER www.dabs.comDETAILS www.gigabeat.toshiba.co.uk

If you can't leave the house without your music and photo collections, Toshiba's smart Gigabeat might be just what you need. Though small, its 320x240 pixel screen will do your snaps proud. Battery life is an excellent 15 hours, but you should budget for a headphone upgrade if you want the best sound quality.

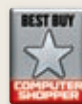


SPECIFICATIONS 20GB capacity, USB Hi-Speed interface, MP3, WMA and WAV playback, JPEG display. **Part code** MEG-F20

HOTLIST HEADPHONES**SENNHEISER
PXC 250**

RATING ★★★★★

PRICE £70 inc VAT

SUPPLIER www.dolphinmusic.co.ukDETAILS www.sennheiser.co.uk

These headphones use active electronics to cancel out environmental sounds. They don't do much to reduce unwelcome speech or music, but they are astonishingly effective on a plane or train. They sound great with plenty of bass and are comfortable to wear. Aside from their bulky battery case, these headphones are ideal for travel.



SPECIFICATIONS Stereo-active noise-cancelling headphones, frequency response 10-21,000Hz, sensitivity 106dB. **Part code** PXC 250

**CHOOSING A...
SPEAKER
SYSTEM**

Follow our sound advice to selecting the best speaker setup

1 PC speaker systems, which consist of speakers and an amplifier to power them, can cost anything from £5 to £300. The cheapest sets, with the specifications shown in grey below, will be fine for those who simply want to play Windows alert noises on a PC they use solely for work.

2 Those who use their PC for any kind of entertainment should go for a better system. The first thing to look for is a sub-woofer, which handles bass frequencies, while the satellites output mid- and high-frequency sounds. Other than this, the best way to establish the quality of a system is to consult our reviews. Specs don't tell you much and price often bears little relation to performance.

3 Games and DVDs will benefit greatly from a surround system. The standard surround configuration is 5.1 (five satellites and one sub-woofer), but those who must have the latest technologies should consider 6.1 or 7.1 speakers, plus a compatible sound card that supports the extended Dolby Digital EX format.

4 The power rating can give you a rough idea of how loud the speakers will go. Ignore PMPO or Peak Power ratings, which can be as much as 10 times the RMS figure. A 50W RMS system should provide ample volume for a desktop PC, but for a home cinema look for 100W or more.

5 Stereo speakers just need a single analogue stereo input, while a 5.1 system needs three. Surround systems with Dolby Digital decoders must be fed through an S/PDIF digital input, which comes in (non-compatible) coaxial and optical versions. However, as Dolby Digital decoding can be handled in software, surround speakers with analogue inputs are much more cost-effective.

FILL IN YOUR SPECS HERE
(Recommended minimum in grey)

SURROUND FORMAT: Stereo

RMS POWER: 5W

INPUTS: 1x analogue

BUILT-IN DECODING: None